PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES A TRAFFIC SIGNAL MODIFICATION IN CONJUNCTION WITH GEOMETRIC IMPROVEMENTS ALONG CRESTWOOD BOULEVARD TO PROVIDE EASTBOUND DUAL LEFT TURN LANES. THE MODIFICATION INVOLVES THE INSTALLATION OF A NEW POLE AND MAST ARM TO PROVIDE TRAFFIC SIGNAL HEADS FOR THE NEW LANE CONFIGURATION. BALLENGER CREEK PIKE (MD 351) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION..

II. INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC ACTUATED MODE. BALLENGER CREEK PIKE WILL OPERATE WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASING. CRESTWOOD BOULEVARD WILL OPERATE AS SPLIT PHASED. THE WESTBOUND RIGHT TURNS FROM CRESTWOOD BOULEVARD WILL OPERATE AS OVERLAP WITH THE SOUTHBOUND LEFT TURNS.

III. CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER AND ALL ASSOCIATED HARDWARE WILL BE MAINTAINED.

IV. SPECIAL NOTES

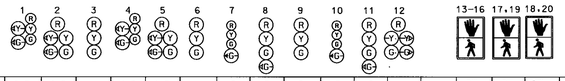
1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00-13, 104.00-19, 104.00-21-104.00-24, 104.17-01, 104.17-02, 104.39-02, 104.41-02, 104.48-01, 104.48-02, 104.49-01, 104.49-02, 104.81-01, 104.81-02.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING ALL CABLE TO THE CABINET AND SHALL PROPERLY LABEL EACH CABLE.

3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

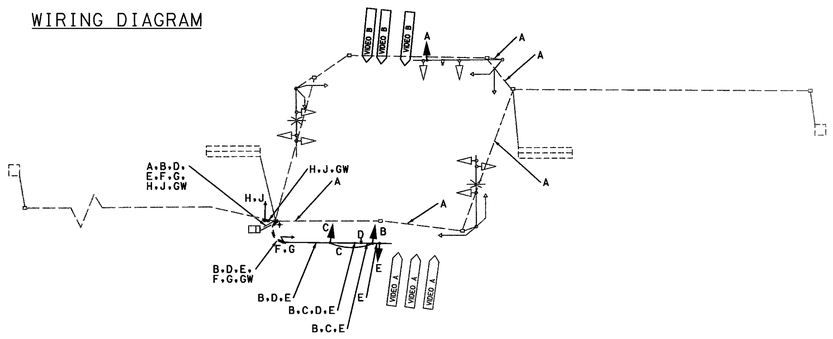
PHASE CHART

NORMAL OPERATION



PHASE 1 + 5	←G/R	←G/R	R	←G/R	←G/R	R	R	R	R	R	R	R/G→		DW	DW	DW
1 + 5 CHANGE	1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6															
PHASE 1 + 6	←G/G	←G/G	G	R	R	R	R	R	R	R	R	R		DW	DW	DW
1 + 6 CHANGE	←Y/G	←Y/G	G	R	R	R	R	R	R	R	R	R		DW	DW	DW
PHASE 2 + 5	R	R	R	←G/G	←G/G	G	R	R	R	R	R	R		DW	DW	DW
2 + 5 CHANGE	R	R	R	←Y/G	←Y/G	G	R	R	R	R	R	R		DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R		DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R		DW	DW	DW
2 +6 ALT	G	G	G	G	G	G	R	R	R	R	R	R		W	DW	DW
PED. CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R		FL/DW	DW	DW
2+6 ALT CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R		DW	DW	DW
PHASE 3	R	R	R	R	R	R	←C	←C	G	R	R	R		DW	DW	DW
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R		DW	DW	DW
PHASE 3 ALT.	R	R	R	R	R	R	←C	←C	G	R	R	R		DW	W	DW
PED CLEAR	R	R	R	R	R	R	←C	←C	G	R	R	R		DW	FL/DW	DW
3 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R		DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	R	←C	←C	G		DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y		DW	DW	DW
PHASE 4 ALT.	R	R	R	R	R	R	R	R	R	←C	←C	G		DW	DW	WK
PED CLEAR	R	R	R	R	R	R	R	R	R	←C	←C	G		DW	DW	FL/DW
4 ALT CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y		DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R		DARK	DARK	DARK

WIRING DIAGRAM



WIRING DIAGRAM

A,B,E	7 CONDUCTOR ELECTRICAL CABLE (#14 AWG)
C,F,H	5 CONDUCTOR ELECTRICAL CABLE (#14 AWG)
H	250' VIDEO DETECTION LEAD IN
G,J	2 CONDUCTOR ELECTRICAL CABLE (#14 AWG) FOR PUSH BUTTON
GW	GROUND WIRE
⏚	GROUND ROD (EX)

EQUIPMENT LIST "A"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY SHA

QUANTITY	UNITS	SPECIFICATION SECTION	DESRCRIPTION
NONE			

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

QUANTITY	UNITS	SPECIFICATION SECTION	DESRCRIPTION
1	LS	104	Maintenance of Traffic.
1	LS	108	Mobilization.
1	CY	205	Test pit excavation.
5	CY	801	Concrete for signal foundation.
20	SF	813	Furnish and install sheet aluminum signs consisting of: 2 ea. R10-4(I) 9"x12" - POLE MOUNTED 2 ea. R3-5(L) 30"x36" - MAST ARM MOUNTED 1 ea. R10-11(b) 24"x24" - MAST ARM MOUNTED
20	LF	805	3 in. schedule 80 rigid PVC conduit (trenched).
1	EA	816	Video detection camera.
1	EA	810	Control cable, 250', video detection camera to controller.
1	EA	818	27' steel pole with 60' mast arm
1	EA	818	10' pedestal pole
9	EA	814	12 in. vehicular signal head section.
4	EA	814	8 in. vehicular signal head section.
4	EA	814	12 in. pedestrian signal head section.
75	LF	810	Electrical cable - 2 conductor (NO.14 AWG).
100	LF	810	Electrical cable - 5 conductor (NO.14 AWG).
700	LF	810	Electrical cable - 7 conductor (NO.14 AWG).
2	EA	817	Pedestrian push button assembly.

PROJECT CONTACTS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 624-8140

MR. DAVID COYNE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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MS. ANDREA ABEND
DISTRICT UTILITIES ENGINEER
PHONE: (301) 624-8116

MR. RICHARD DAFF
SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: 410)787-7630

EQUIPMENT LIST "C"

B. EQUIPMENT TO BE RETURNED TO SHA

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
NONE			

WELLS & ASSOCIATES, LLC
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
1420 Spring Hill Rd., Suite 600
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Leesburg, VA 20175
Phone: (703) 443-1442 Fax: (703) 443-1225

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
TRAFFIC SIGNAL DESIGN PLAN
BALLENGER CREEK PKWY (MD 351)
AT CRESTWOOD BOULEVARD

DRAWN BY: WTB	F.A.P. NO.		TS NO. 3488 B - GI	SHEET NO. 2 OF 2
CHECKED BY: CT	S.H.A. NO.	BW996M82		
SCALE: NTS	COUNTY:	FREDERICK	T.I.M.S. NO. E434	
DATE: 01/25/05	LOG MILE:	10035100.61		